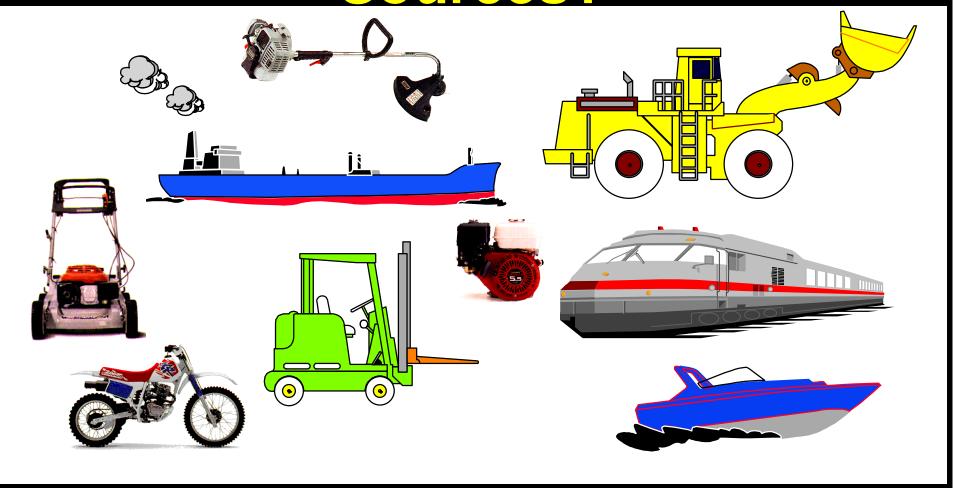
OFF-ROAD MOBILE SOURCE **TECHNOLOGY REVIEW WORKSHOP DAY 2 - Compression-Ignition**

What are Off-Road Mobile Sources?



Why a Technology Review?

 Board directed staff to prepare a review of technologies available for use in off-road sources.

- Determine industry progress towards meeting the existing standards and requirements.
- Ensure staff and industry are fully aware of possible options for future control, including benefits and detriments.

Technology Review

Comment period extended to March 15

 Comments should address issues noted in the workshop notice

Sign up for individual meetings

 Report tentatively scheduled for November of this year

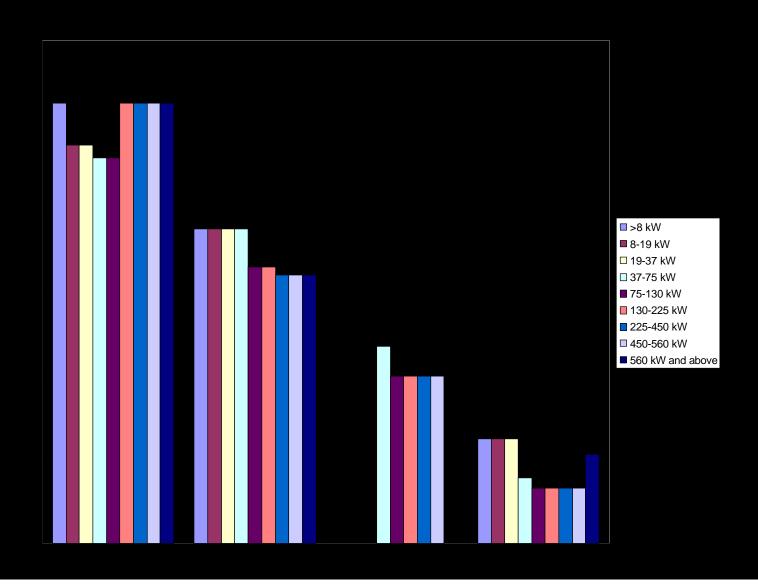
Today's Workshop

Compression-Ignition Engines

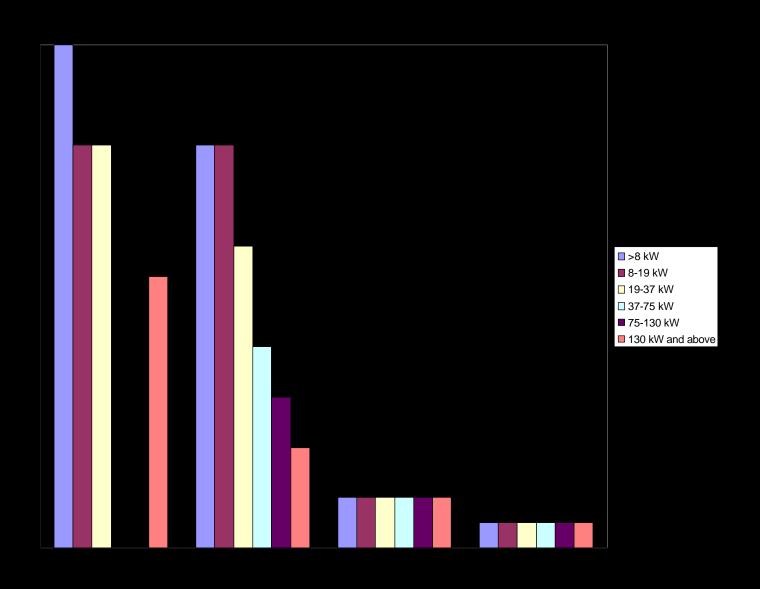
 Early step in preparing technology review report for the Board

Stimulate thought and inform

HC+NOx Emissions Standards



PM Emissions Standards



ARB Compression-Ignition Engine Research

- In Conjunction with EPA, contracts with Southwest Research
 - to meet Tier 3 levels and determine appropriate Tier 3 PM levels
 - to evaluate transient operation emissions/need for transient certification testing

Compression-Ignition Agenda

 Emissions Control Technologies for Off-Road Compression-Ignition Engines -Dale McKinnon, Manufacturers of Emissions Controls Association

 The QuadCAT Four-Way Catalytic Converter: An Integrated Emission Control System for Diesel Engines - Dr. Brad Edgar, Cyrex

Compression-Ignition Agenda

 Innovative Reengineering of Two-Cycle Diesel Engines - Terry Ellis, Clean Cam Technology Systems

- Emissions Technologies for Off-Highway Compression-Ignition Engines
 - Peter Church, AVL

Compression-Ignition Agenda

 ARCO Clean Diesel Fuel - Charles LeTavec, ARCO